Overview



Center for Sponsored Coastal Ocean Research

Coastal Ocean Program

http://www.cop.noaa.gov

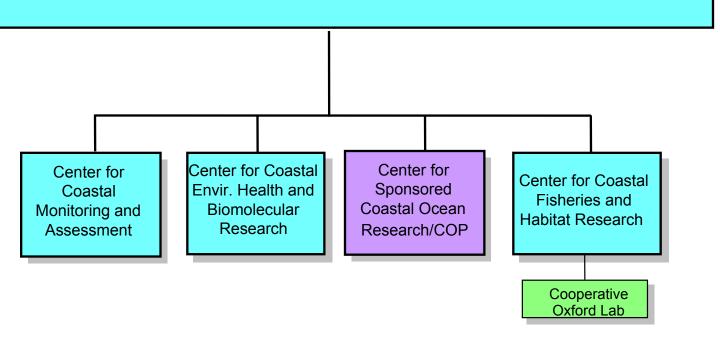
Great Lakes Research Issues Workshop

January 20-21, 2003





National Centers for Coastal Ocean Science



http://www.cop.noaa.gov





The Coastal Ocean Program (COP) is a federalacademic partnership providing predictive capabilities for managing coastal ecosystems.

Operating Principle

COP seeks to deliver the highest quality science in time for important coastal policy decisions by supporting high-priority research and interagency initiatives related to NOAA's mission in three goal areas.





COP's Goal Areas

Coastal Fisheries Ecosystems

Cumulative Coastal Impacts

Harmful Algal Blooms/Eutrophication





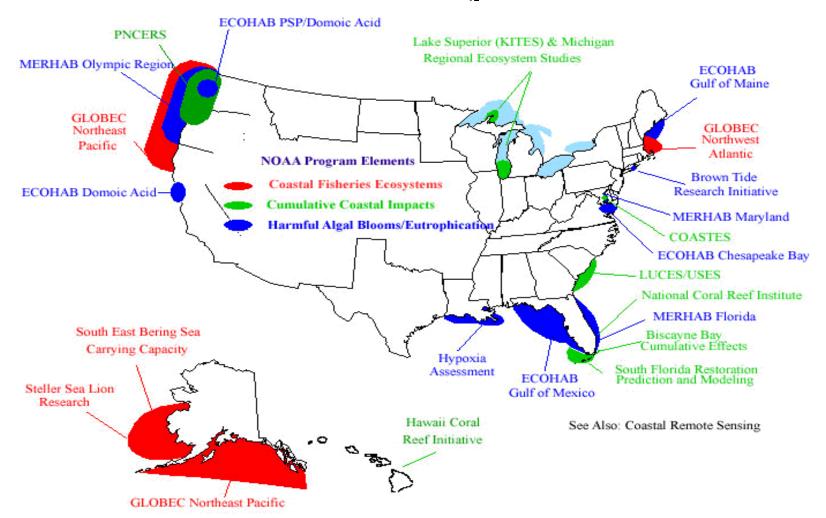
Regional Ecosystem Studies Format

- Support NOAA's Ecosystem & Resource Responsibilities
- Collaboration Between NOAA, Universities, and States
- Multi-Investigator/Disciplinary, Large Scale, Model-Based
- Path Leading to Operational or Management Product
- Tractable Within a 5 Year Period





Current Projects







Coastal Fisheries Ecosystems

U.S. Global Ocean Ecosystems Dynamics (GLOBEC) U.S. Global Change Research Program

Jointly sponsored by NSF and NOAA

GOAL: To predict distribution and abundance of commercially valuable species as a result of changes in their physical and biotic environment, and to anticipate how their populations might respond to climate variability

International GLOBEC initiated by SCOR and IOC in 1991





Study Regions and Fisheries Stocks

Northwest Atlantic: Cod and Haddock

Northeast Pacific: Salmon

• Bering Sea: Pollock





Cumulative Coastal Impacts

CSCOR supports regional studies on the causes and impacts of multiple stresses in the coastal environment. These integrative studies lead to more effective management of coastal resources by:

- Developing scientific indicators of stress in coastal systems
- Predicting impacts of multiple stresses on living marine resources
- Evaluating natural resources in ecological and economical terms
- Predicting the outcomes of specific management strategies





Cumulative Coastal Impact Projects

- Patuxent River (Chesapeake Bay)
- South Atlantic Bight Estuarine Systems
- Florida Bay/Keys
- Pacific Northwest Coastal Ecosystems
- Coral Reefs (Hawaii/Guam/Fla./Puerto Rico)
- Great Lakes (Michigan/Superior)





Harmful Algal Blooms/Eutrophication ECOHAB

(Ecology & Oceanography of Harmful Algal Blooms)

- Long Island Brown Tide, *Aureococcus* (1996-2001)
- Florida NSP/*Karenia brevis* (1997-)
- Gulf of Maine PSP/*Alexandrium* (1997-)
- *Pfiesteria* and Related Organisms (1998-)
- Pacific Coast DAP-ASP/Pseudo-nitzschia (1999-)
- Hawaii/Guam Macroalgae (1993-)
- Prevention/Control/Mitigation of HABs (2001-)





Harmful Algal Blooms: MERHAB

(Monitoring & Event Response for Harmful Algal Blooms)

- CSCOR leads HAB Federal Event Response Program, HAB Event Response Coordinator works with other NOAA offices and Federal Agencies to assist local jurisdictions in handling HAB events.
- Provide remote sensing capabilities, toxin analysis, aircraft and ships for sampling, identification of researchers to assist in response effort
- Current activities: Olympic region, Quileute Tribe, Florida, Maryland





Eutrophication: Gulf of Mexico Hypoxia

- Gulf of Mexico hypoxia research & monitoring funded by COP since 1990
- Since 1993, mid-summer bottom-water hypoxia has been larger than 4,000 square miles. In 1999 it was 8,000 square miles (about size of New Jersey)
- Current activities: modeling, effects on zooplankton, shrimp, fish and other nekton
- Scientific support for NSTC Integrated Assessment of Hypoxia in the Northern Gulf of Mexico





Resource Information Delivery

Decision Analysis Series

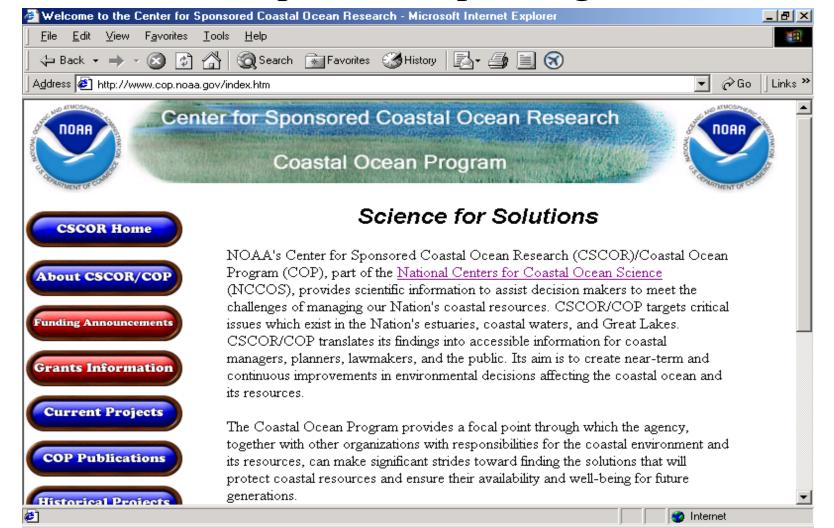
Recent Publications

- 11. Changes in Pacific Northwest Coastal Ecosystems
- 12. Guidelines for the Conservation and Restoration of Seagrasses in the United States and Adjacent Waters
- 13. Bering Sea FOCI Final Report Fisheries-Oceanography Coordinated Investigations
- 14. Nutrient Enhanced Coastal Ocean Productivity in the Gulf of Mexico
- 15 20. Gulf of Mexico Hypoxia Assessment Report Series
- 21. The Potential Impacts of Climate Change on Coastal and Marine Resources



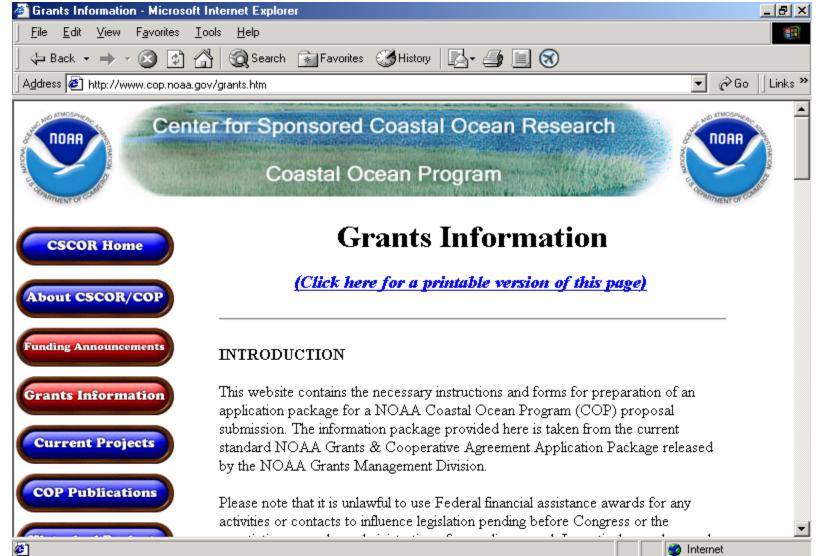


http://www.cop.noaa.gov



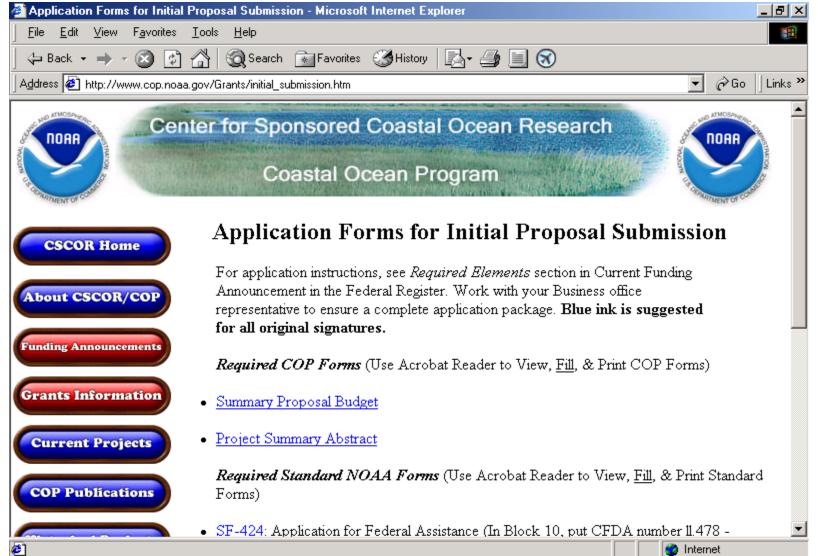
















COP Great Lakes Research Issues Workshop

- Identify & Prioritize Great Lakes Research Issues
- Strive Toward Consensus on Priorities
- Build Upon Previous Research (e.g., EEGLE)
- Update Issues ID at 1992 Ypsilanti Workshop
- Develop Framework for Potential Future Initiative